

## Refine Search

### Search Results -

Terms	Documents
L6 and epoxyvinylsulfon\$8	1

**Database:**

US Pre-Grant Publication Full-Text Database  
US Patents Full-Text Database  
US OCR Full-Text Database  
EPO Abstracts Database  
JPO Abstracts Database  
Derwent World Patents Index  
IBM Technical Disclosure Bulletins

**Search:**

L10					<b>Refine Search</b>
			<b>Clear</b>	<b>Interrupt</b>	

### Search History

**DATE:** Sunday, September 30, 2007    [Purge Queries](#)    [Printable Copy](#)    [Create Case](#)

**Set Name** **Query**

side by side

**Hit Count** **Set Name**

result set

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

<u>L10</u>	L6 and epoxyvinylsulfon\$8	1	<u>L10</u>
<u>L9</u>	L6 and allylic\$9	43	<u>L9</u>
<u>L8</u>	L6 and allylic alohol	0	<u>L8</u>
<u>L7</u>	L6 and allylic alohol and epoxyvinylsulfon\$8	0	<u>L7</u>
<u>L6</u>	L3 and oxidiz\$8	170	<u>L6</u>
<u>L5</u>	L4 and oxidiz\$8	1	<u>L5</u>
<u>L4</u>	L3 and dienylsulfide	1	<u>L4</u>
<u>L3</u>	L2 and 549/\$	423	<u>L3</u>
<u>L2</u>	synthons and intermediates	2753	<u>L2</u>

*DB=PGPB; PLUR=YES; OP=ADJ*

<u>L1</u>	20040138485	1	<u>L1</u>
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END OF SEARCH HISTORY

## Hit List

First Hit	Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs
Generate OACS					

Search Results - Record(s) 1 through 1 of 1 returned.

1. Document ID: US 20040138485 A1

L10: Entry 1 of 1

File: PGPB

Jul 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040138485

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20040138485 A1

TITLE: Chemical synthons and intermediates

PUBLICATION-DATE: July 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fuchs, Philip L.	West Lafayette	IN	US
Meyers, David J.	Brookline	MA	US
Torres, Eduardo	West Lafayette	IN	US
Park, Taesik	West Lafayette	IN	US
Kim, In C.	New Haven	CT	US
Chen, Yuzhong	Newark	DE	US
Lantrip, Douglas	Lafayette	IN	US
Evarts, Jerry B. JR.	Kirkland	WA	US

US-CL-CURRENT: 549/546; 564/80, 568/28

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMPC	Drawn De
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
Terms		Documents			
L6 and epoxyvinylsulfon\$8		1			

Display Format: [-]

[Previous Page](#)

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[Go to Doc#](#)

10.9% PROCESSED 816518 ITERATIONS

19 ANSWERS

13.4% PROCESSED 1000000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.44

44 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 7487285 TO 7487285  
PROJECTED ANSWERS: 275 TO 383

L2 44 SEA SSS FUL L1

L3 10 L2

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21900261 PY<2002  
L4 0 L3 AND PY<2002

=> s l3 1-10 ibib abs hitstr  
MISSING OPERATOR L3 1-10

The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> d l3 1-10 ibib abs hitstr

L3 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2007:874408 CAPLUS  
DOCUMENT NUMBER: 147:257654  
TITLE: Preparation of pyridone derivatives as herbicides  
INVENTOR(S): Takabe, Fumiaki; Fukumoto, Shunichirou; Kajiki, Ryu;  
Asakura, Sohei; Ueno, Ryohei; Kobayashi, Masami;  
Takahashi, Satoru; Yonekura, Norihisa; Hanai, Ryo;  
Mitsunari, Takashi  
PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan; Ihara  
Chemical Industry Co., Ltd.  
SOURCE: PCT Int. Appl., 189pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007088876	A1	20070809	WO 2007-JP51566	20070131
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.:

JP 2006-25322

A 20060202

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FILE COVERS 1907 - 30 Sep 2007 VOL 147 ISS 15  
FILE LAST UPDATED: 28 Sep 2007 (20070928/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

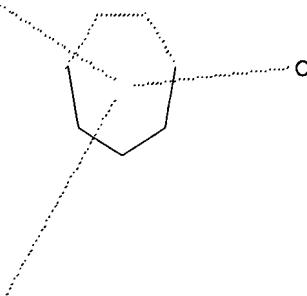
<http://www.cas.org/infopolicy.html>

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS  
L1 STR

S.



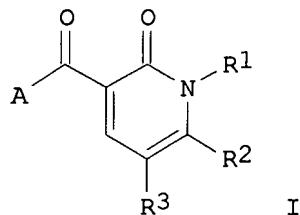
Structure attributes must be viewed using STN Express query preparation.

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Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

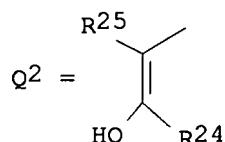
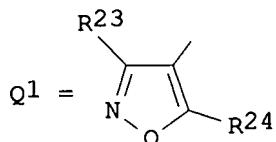
FULL SEARCH INITIATED 15:44:28 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 7487285 TO ITERATE

6.0% PROCESSED 450996 ITERATIONS

6 ANSWERS



I



AB The title compds. I [R1 = alkyl, alkenyl, alkynyl, etc.; R2, R3 = H, nitro, cyano, etc.; A = Q1, Q2, etc.; R23 = alkyl, haloalkyl, cycloalkyl, etc.; R24 = H, halo, cyano, etc.; R25 = alkoxy carbonyl, cyano, nitro] are prepared. Thus, 2-[1,2-dihydro-1-methyl-2-oxo-6-(trifluoromethyl)pyridine-3-carbonyl]-3-hydroxy-2-cyclohexen-1-one was prepared in a 2-step process starting from 1,2-dihydro-1-methyl-2-oxo-6-(trifluoromethyl)pyridine-3-carboxylic acid. Compds. of this invention at 1000 g/ha gave  $\geq 90\%$  control of Echinochloa oryzicola.

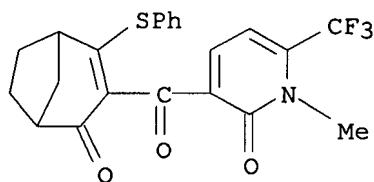
IT 945901-14-4P 945901-15-5P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridone derivs. as herbicides)

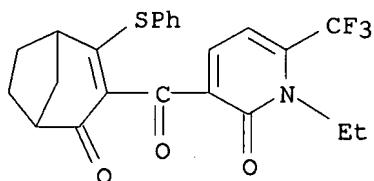
RN 945901-14-4 CAPLUS

CN INDEX NAME NOT YET ASSIGNED



RN 945901-15-5 CAPLUS

CN INDEX NAME NOT YET ASSIGNED

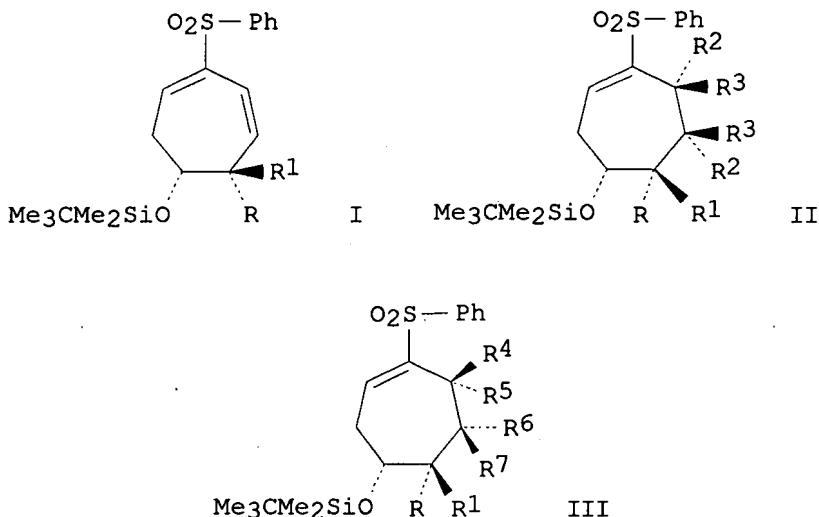


REFERENCE COUNT:

50

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:637518 CAPLUS  
 DOCUMENT NUMBER: 147:257574  
 TITLE: Asymmetric Synthesis of All Eight Seven-Carbon  
 Dipropionate Stereotetradis  
 AUTHOR(S): El-Awa, Ahmad; Mollat du Jourdin, Xavier; Fuchs,  
 Philip L.  
 CORPORATE SOURCE: Department of Chemistry, Purdue University, West  
 Lafayette, IN, 47907, USA  
 SOURCE: Journal of the American Chemical Society (2007),  
 129(29), 9086-9093  
 CODEN: JACSAT; ISSN: 0002-7863  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Enantiopure cycloheptadienyl sulfones I ( $R = Me$ ,  $R1 = H$ ;  $R = H$ ,  $R1 = Me$ ) are diastereoselectively epoxidized to yield epoxyvinyl sulfones II ( $R = Me$ ,  $R1 = R2 = H$ ,  $R3 = O$ ;  $R = Me$ ,  $R1 = R3 = H$ ,  $R2 = O$ ;  $R = R2 = H$ ,  $R1 = Me$ ,  $R3 = O$ ;  $R = R3 = H$ ,  $R1 = Me$ ,  $R2 = O$ ) in high yields and diastereomeric ratios. Syn and anti methylation of epoxides II enables access to all eight possible diastereomeric stereotetradis, seven of which are commonly found in polypropionate natural products. Anti methylations of the above epoxides are possible by either the reaction of Me organometallics promoted by copper(I) or via reaction with trimethylaluminum to yield stereotetradis III ( $R = R5 = Me$ ,  $R1 = R4 = R6 = H$ ,  $R7 = OH$ ;  $R = R5 = Me$ ,  $R1 = R4 = R7 = H$ ,  $R6 = OH$ ;  $R = R4 = R6 = H$ ,  $R1 = R5 = Me$ ,  $R7 = OH$ ;  $R = R5 = R7 = H$ ,  $R1 = R4 = Me$ ,  $R6 = OH$ ). Syn methylations are achieved via Lawton SN2' reaction in the case of stereotetradis III ( $R = R4 = Me$ ,  $R1 = R5 = R6 = H$ ,  $R7 = OH$ ;  $R = R5 = R6 = H$ ,  $R1 = R4 = Me$ ,  $R7 = OH$ ;  $R = R4 = R7 = H$ ,  $R1 = R5 = Me$ ,  $R6 = OH$ ), while stereotetrad III ( $R = R5 = Me$ ,  $R1 = R4 = R7 = H$ ,  $R6 = OH$ ) is accessed by an oxidation/reduction alc. inversion sequence from stereotetrad III ( $R = R5 = Me$ ,  $R1 = R4 = R6 = H$ ,  $R7 = OH$ ). All stereotetradis were obtained in high diastereomeric ratios and yields, and their relative stereochem. was confirmed by X-ray crystallog. Oxidative cleavage of the cyclic stereotetradis yields termini-differentiated acyclic heptanyl stereotetradis ready for use in building larger fragments in the course of target

**syntheses.**

IT 945931-78-2P 945931-79-3P 945931-81-7P

945931-82-8P 945931-96-4P

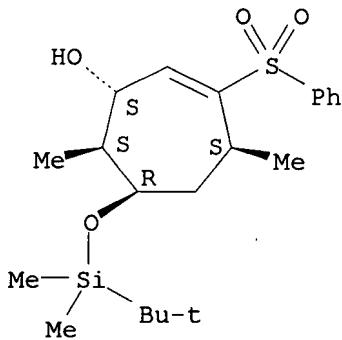
RL: BYP (Byproduct); PREP (Preparation)

(asym. synthesis of eight 7-carbon dipropionate stereotetrads via epoxidn., methylation of epoxides and oxidative cleavage)

RN 945931-78-2 CAPLUS

CN 2-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,7-dimethyl-3-(phenylsulfonyl)-, (1S,4S,6R,7S)- (CA INDEX NAME)

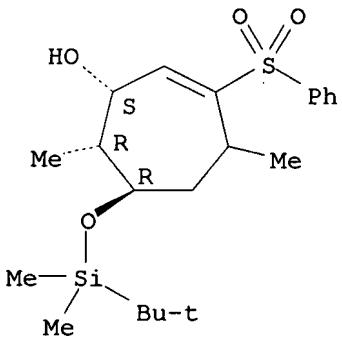
**Absolute stereochemistry.**



RN 945931-79-3 CAPLUS

CN 2-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,7-dimethyl-3-(phenylsulfonyl)-, (1S,6R,7R)- (CA INDEX NAME)

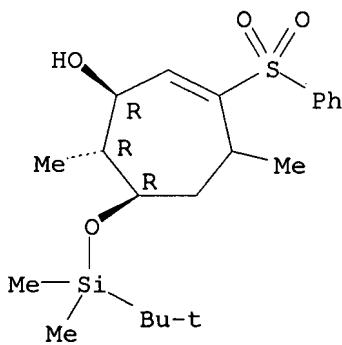
**Absolute stereochemistry.**



RN 945931-81-7 CAPLUS

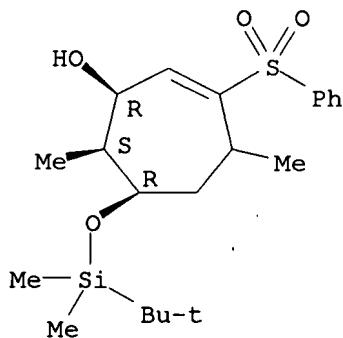
CN 2-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,7-dimethyl-3-(phenylsulfonyl)-, (1R,6R,7R)- (CA INDEX NAME)

**Absolute stereochemistry.**



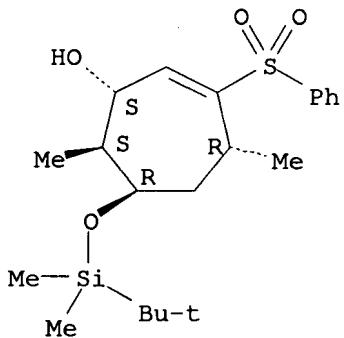
RN 945931-82-8 CAPLUS  
 CN 2-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,7-dimethyl-  
     3-(phenylsulfonyl)-, (1R,6R,7S)- (CA INDEX NAME)

Absolute stereochemistry.



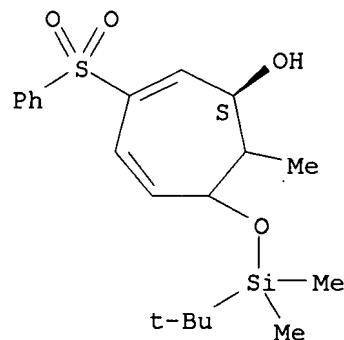
RN 945931-96-4 CAPLUS  
 CN 2-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4,7-dimethyl-  
     3-(phenylsulfonyl)-, (1S,4R,6R,7S)- (CA INDEX NAME)

Absolute stereochemistry.



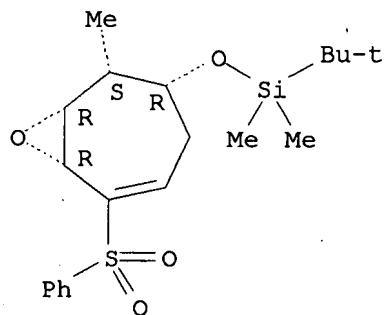
IT 945931-83-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
     (asym. synthesis of eight 7-carbon dipropionate stereotetradts via  
     epoxidn., methylation of epoxides and oxidative cleavage)  
 RN 945931-83-9 CAPLUS  
 CN 2,4-Cycloheptadien-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-  
     methyl-3-(phenylsulfonyl)-, (1S)- (CA INDEX NAME)

Absolute stereochemistry.



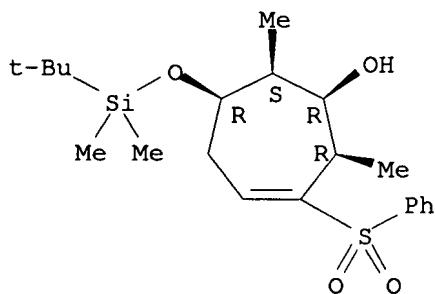
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 945931-86-2P 945931-89-5P 945931-90-8P  
 945931-93-1P 945931-94-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (asym. synthesis of eight 7-carbon dipropionate stereotetradis via epoxidn., methylation of epoxides and oxidative cleavage)  
 RN 945931-73-7 CAPLUS  
 CN 8-Oxabicyclo[5.1.0]oct-2-ene, 5-[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-methyl-2-(phenylsulfonyl)-, (1R,5R,6S,7R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 945931-76-0 CAPLUS  
 CN 3-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyl]oxy]-2,7-dimethyl-3-(phenylsulfonyl)-, (1R,2R,6R,7S)- (CA INDEX NAME)

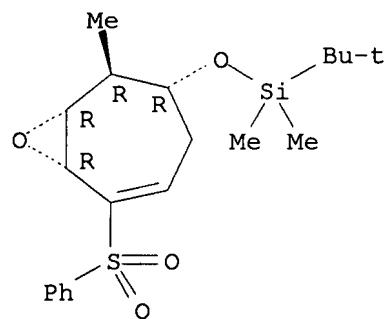
Absolute stereochemistry.



RN 945931-77-1 CAPLUS  
 CN 8-Oxabicyclo[5.1.0]oct-2-ene, 5-[(1,1-dimethylethyl)dimethylsilyl]oxy]-6-

methyl-2-(phenylsulfonyl)-, (1R,5R,6R,7R)- (CA INDEX NAME)

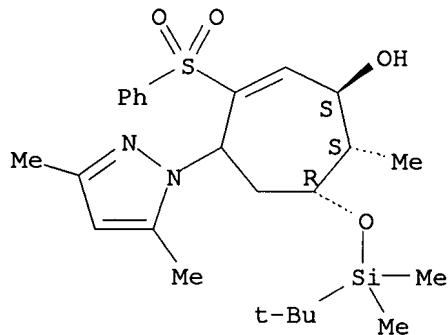
Absolute stereochemistry.



RN 945931-86-2 CAPLUS

CN 2-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyloxy]-4-(3,5-dimethyl-1H-pyrazol-1-yl)-7-methyl-3-(phenylsulfonyl)-, (1S,6R,7S)- (CA INDEX NAME)

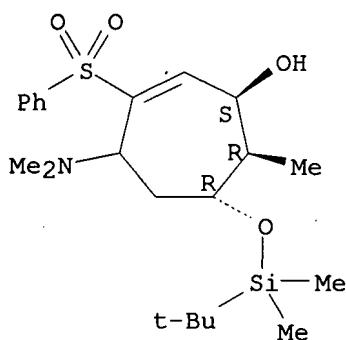
Absolute stereochemistry.



RN 945931-89-5 CAPLUS

CN 2-Cyclohepten-1-ol, 4-(dimethylamino)-6-[(1,1-dimethylethyl)dimethylsilyloxy]-7-methyl-3-(phenylsulfonyl)-, (1S,6R,7R)- (CA INDEX NAME)

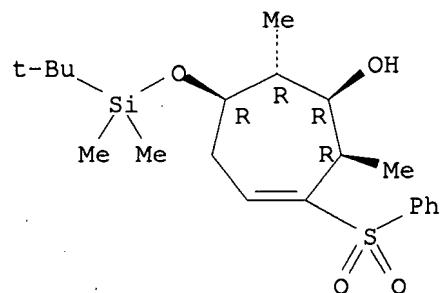
Absolute stereochemistry.



RN 945931-90-8 CAPLUS

CN 3-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyloxy]-2,7-dimethyl-3-(phenylsulfonyl)-, (1R,2R,6R,7R)- (CA INDEX NAME)

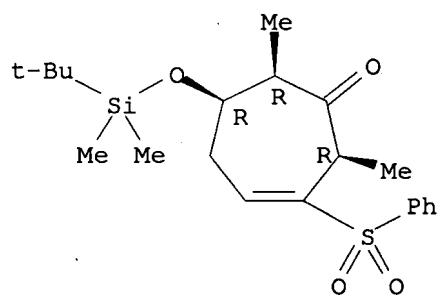
Absolute stereochemistry.



RN 945931-93-1 CAPLUS

CN 3-Cyclohepten-1-one, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2,7-dimethyl-3-(phenylsulfonyl)-, (2R,6R,7R)- (CA INDEX NAME)

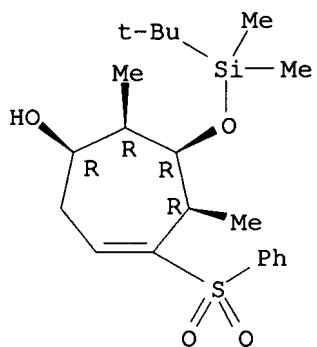
Absolute stereochemistry.



RN 945931-94-2 CAPLUS

CN 3-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-5,7-dimethyl-4-(phenylsulfonyl)-, (1R,5R,6R,7R)- (CA INDEX NAME)

Absolute stereochemistry.



IT 945931-80-6P 945931-84-0P 945931-85-1P

945931-87-3P 945931-91-9P 945931-92-0P

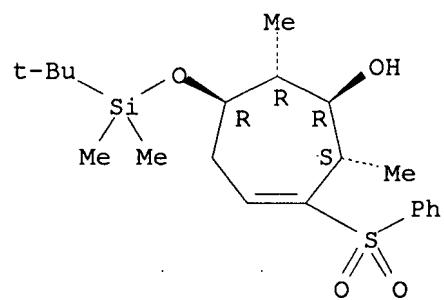
RL: SPN (Synthetic preparation); PREP (Preparation)

(asym. synthesis of eight 7-carbon dipropionate stereotetrads via epoxidn., methylation of epoxides and oxidative cleavage)

RN 945931-80-6 CAPLUS

CN 3-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2,7-dimethyl-3-(phenylsulfonyl)-, (1R,2S,6R,7R)- (CA INDEX NAME)

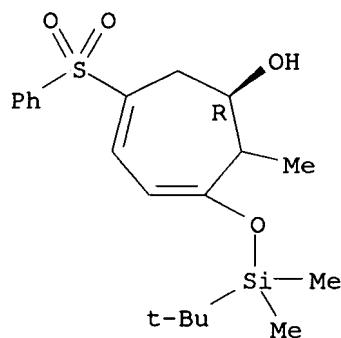
Absolute stereochemistry.



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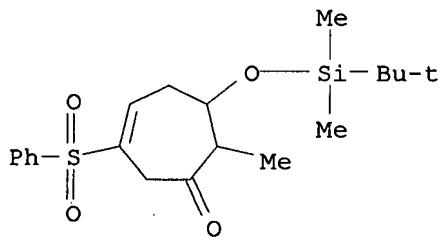
CN 3,5-Cycloheptadien-1-ol, 3-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2-methyl-6-(phenylsulfonyl)-, (1R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 945931-85-1 CAPLUS

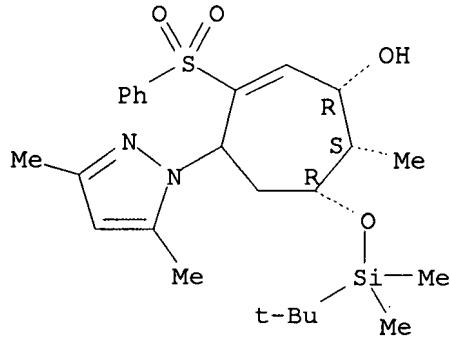
CN 3-Cyclohepten-1-one, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-methyl-3-(phenylsulfonyl)- (CA INDEX NAME)



RN 945931-87-3 CAPLUS

CN 2-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-4-(3,5-dimethyl-1H-pyrazol-1-yl)-7-methyl-3-(phenylsulfonyl)-, (1R,6R,7S)- (CA INDEX NAME)

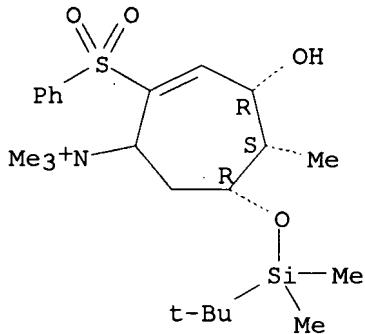
Absolute stereochemistry.



RN 945931-91-9 CAPLUS

CN 2-Cyclohepten-1-aminium, 6-[(1,1-dimethylethyl)dimethylsilyloxy]-4-hydroxy-N,N,N,5-tetramethyl-2-(phenylsulfonyl)-, (4R,5S,6R)- (CA INDEX NAME)

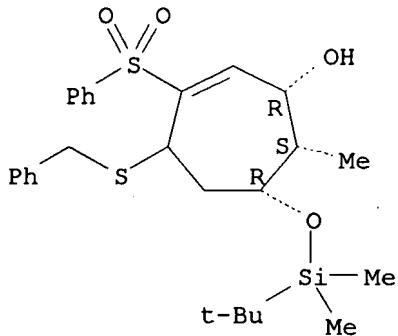
Absolute stereochemistry.



RN 945931-92-0 CAPLUS

CN 2-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyloxy]-7-methyl-4-[(phenylmethyl)thio]-3-(phenylsulfonyl)-, (1R,6R,7S)- (CA INDEX NAME)

Absolute stereochemistry.



IT 945931-75-9P 945931-97-5P

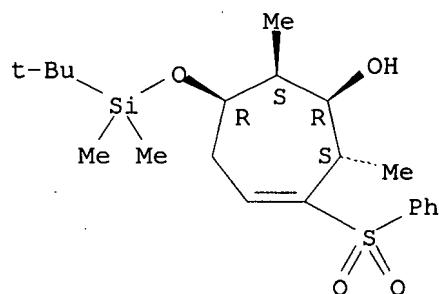
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(crystal structure; asym. synthesis of eight 7-carbon dipropionate stereotetradis via epoxidn., methylation of epoxides and oxidative cleavage)

RN 945931-75-9 CAPLUS

CN 3-Cyclohepten-1-ol, 6-[(1,1-dimethylethyl)dimethylsilyloxy]-2,7-dimethyl-

3-(phenylsulfonyl)-, (1R,2S,6R,7S)- (CA INDEX NAME)

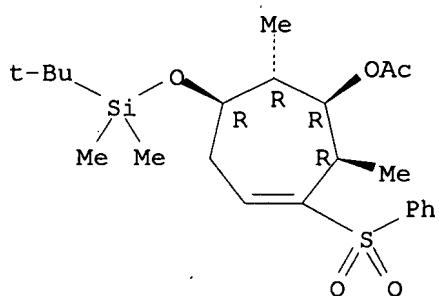
Absolute stereochemistry.



RN 945931-97-5 CAPLUS

CN 3-Cyclohepten-1-ol, 6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-2,7-dimethyl-3-(phenylsulfonyl)-, 1-acetate, (1R,2R,6R,7R)- (CA INDEX NAME)

Absolute stereochemistry.



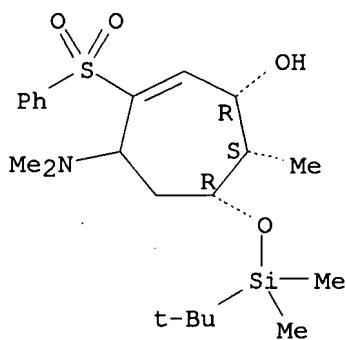
IT 945931-88-4

RL: RCT (Reactant); RACT (Reactant or reagent)  
(failed methylation/oxidative Cope elimination; asym. synthesis of  
eight 7-carbon dipropionate stereotetradis via epoxidn., methylation of  
epoxides and oxidative cleavage)

RN 945931-88-4 CAPLUS

CN 2-Cyclohepten-1-ol, 4-(dimethylamino)-6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]-7-methyl-3-(phenylsulfonyl)-, (1R,6R,7S)- (CA INDEX NAME)

Absolute stereochemistry.



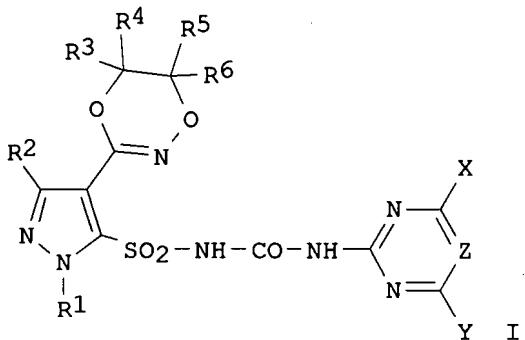
REFERENCE COUNT:

65

THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:462031 CAPLUS  
 DOCUMENT NUMBER: 146:416740  
 TITLE: Herbicide compositions containing  
 pyrazolesulfonylureas  
 INVENTOR(S): Saeki, Manabu  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: PCT Int. Appl., 111pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007046440	A1	20070426	WO 2006-JP320777	20061018
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			JP 2005-303144 JP 2005-311700	A 20051018 A 20051026
OTHER SOURCE(S): MARPAT 146:416740 GI				



AB A herbicide composition useful in rice cultivation contains both I (R1 = C1-3 (halo)alkyl, alkoxyalkyl, Ph, pyridyl; R2 = H, C1-3 (halo)alkyl or alkoxy, halo; R3-R6 = H, (halo)alkyl, etc.; X, Y = C1-3 (halo)alkyl or (halo)alkoxy, halo, dialkylamino; Z = N, CH) and ≥1 compound selected from among dymron, dimepiperate, and esprocarb; a weeding method comprises applying I and ≥1 compound selected from dymron, dimepiperate, and esprocarb either simultaneously or at different times. Herbicide compns. also may contain I and ≥1 other compound such as cinosulfuron, benthiocarb, etc. Thus, I (R1 = Me, R2 = Cl, R3 = Me, R4-R6 = H, X, Y =

MeO, Z = CH) at 0.5 g/are was ineffective against *Scirpus juncoides*, but when the same compound was applied in combination with cafenstrole (2.5 g/are), weed control was ≥90%.

IT 934352-34-8 934352-61-1 934352-88-2

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(herbicide combinations including pyrazolesulfonylureas useful for weed control in rice)

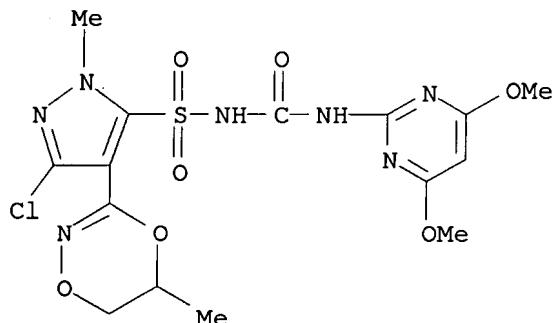
RN 934352-34-8 CAPLUS

CN 1H-Pyrazole-5-sulfonamide, 3-chloro-4-(5,6-dihydro-5-methyl-1,4,2-dioxazin-3-yl)-N-[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-1-methyl-, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

CRN 868680-84-6

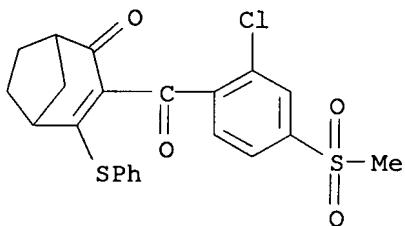
CMF C15 H18 Cl N7 O7 S



CM 2

CRN 156963-66-5

CMF C22 H19 Cl O4 S2



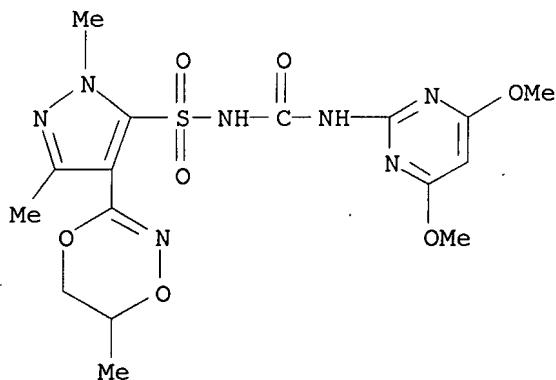
RN 934352-61-1 CAPLUS

CN 1H-Pyrazole-5-sulfonamide, 4-(5,6-dihydro-6-methyl-1,4,2-dioxazin-3-yl)-N-[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-1,3-dimethyl-, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

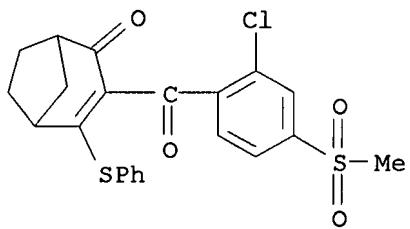
CRN 868680-92-6

CMF C16 H21 N7 O7 S



CM 2

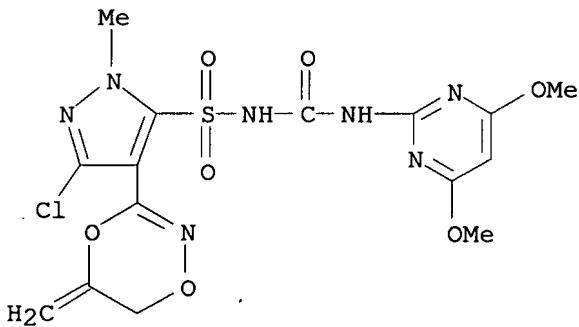
CRN 156963-66-5  
CMF C22 H19 Cl O4 S2



RN 934352-88-2 CAPLUS  
CN 1H-Pyrazole-5-sulfonamide, 3-chloro-4-(5,6-dihydro-5-methylene-1,4,2-dioxazin-3-yl)-N-[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]-1-methyl-, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

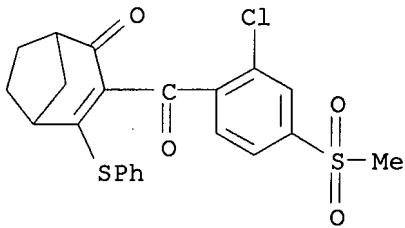
CM 1

CRN 934352-02-0  
CMF C15 H16 Cl N7 O7 S



CM 2

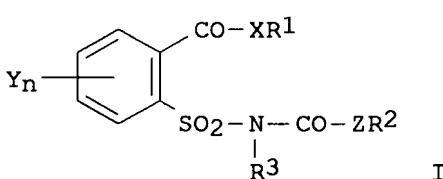
CRN 156963-66-5  
CMF C22 H19 Cl O4 S2



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:227224 CAPLUS  
 DOCUMENT NUMBER: 146:268408  
 TITLE: Phenylsulfonylcarbamate derivatives as herbicide safeners  
 INVENTOR(S): Furuse, Katsumi; Takahashi, Satoru; Ohno, Shuji;  
 Ogawa, Yasunori; Mitsunari, Takashi  
 PATENT ASSIGNEE(S): Kumiai Chemical Industry Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 78pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007023764	A1	20070301	WO 2006-JP316316	20060821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			JP 2005-245544	A 20050826
OTHER SOURCE(S):		MARPAT 146:268408		
GI				



AB Phenylsulfonylcarbamate derivs. (I, wherein R1, R2, R3 = H, alkyl, etc.; Y = halo, NO<sub>2</sub>, etc.; n = 0-4 integer; X, Z = O, S) or salts thereof decrease the harmful effect of herbicides against cultivated plants without loss of

effectiveness. Thus, when benzobicyclon (40 g/10 are) was applied 5 days after transplanting rice in a pot experiment, growth inhibition was 20% at 29 days after transplanting, whereas when I (R1, R3 = H, R2 = 4-chlorobenzyl, X = O, n = 0) was applied at 240 g/10 are on the day after transplanting with the same benzobicyclon treatment, the growth inhibition with only 8%.

IT 927411-99-2

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(benzobicyclon + Bensulfuron-Me + compound III-1; safened herbicide composition)

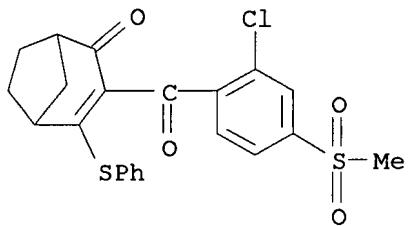
RN 927411-99-2 CAPLUS

CN Benzoic acid, 2-[[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]-, methyl ester, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one and methyl 2-[[{(ethoxycarbonyl)amino]sulfonyl}benzoate (CA INDEX NAME)

CM 1

CRN 156963-66-5

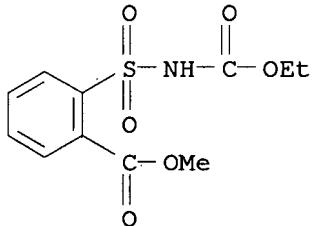
CMF C22 H19 Cl O4 S2



CM 2

CRN 83404-84-6

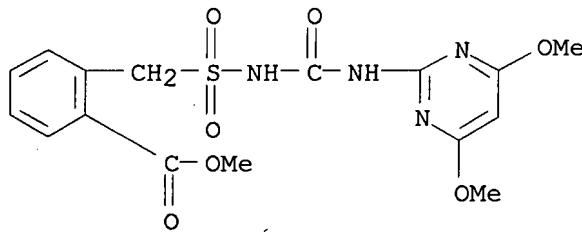
CMF C11 H13 N O6 S



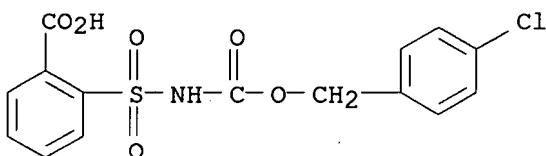
CM 3

CRN 83055-99-6

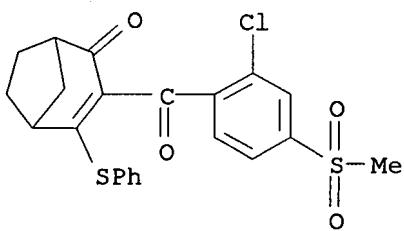
CMF C16 H18 N4 O7 S



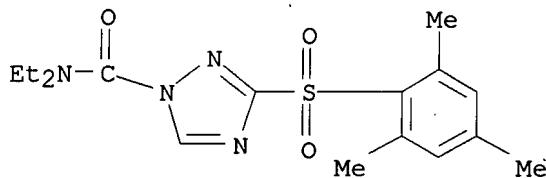
IT 927411-95-8  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
 (benzobicyclon + cafenstrole + compound I-36; safened herbicide composition)  
 RN 927411-95-8 CAPLUS  
 CN Benzoic acid, 2-[[[[4-chlorophenyl)methoxy]carbonyl]amino]sulfonyl]-,  
 mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one and N,N-diethyl-3-[(2,4,6-trimethylphenyl)sulfonyl]-1H-1,2,4-triazole-1-carboxamide (CA INDEX NAME)  
 CM 1  
 CRN 808197-84-4  
 CMF C15 H12 Cl N O6 S



CM 2  
 CRN 156963-66-5  
 CMF C22 H19 Cl O4 S2



CM 3  
 CRN 125306-83-4  
 CMF C16 H22 N4 O3 S



IT 927411-91-4

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(benzobicyclon + compound I-35; safened herbicide composition)

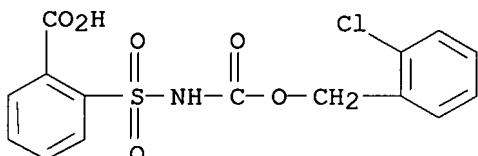
RN 927411-91-4 CAPLUS

CN Benzoic acid, 2-[[[[(2-chlorophenyl)methoxy]carbonyl]amino]sulfonyl]-, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

CRN 808197-83-3

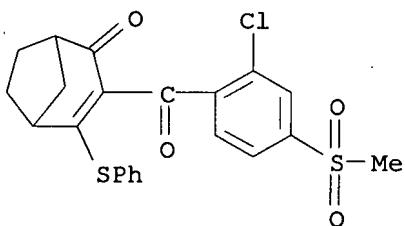
CMF C15 H12 Cl N O6 S



CM 2

CRN 156963-66-5

CMF C22 H19 Cl O4 S2



IT 927411-88-9

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(benzobicyclon + compound I-36; safened herbicide composition)

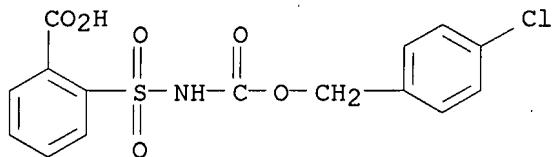
RN 927411-88-9 CAPLUS

CN Benzoic acid, 2-[[[[(4-chlorophenyl)methoxy]carbonyl]amino]sulfonyl]-, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

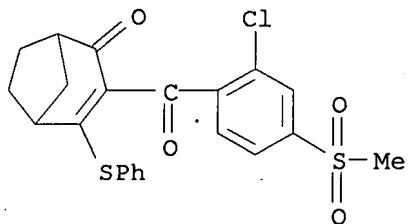
CRN 808197-84-4

CMF C15 H12 Cl N O6 S



CM 2

CRN 156963-66-5  
CMF C22 H19 Cl O4 S2

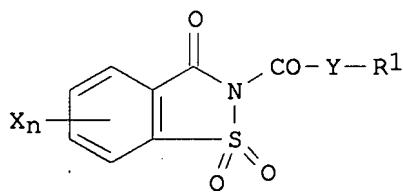


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:226871 CAPLUS  
 DOCUMENT NUMBER: 146:268407  
 TITLE: Benzoisothiazolinone dioxides as herbicide safeners  
 INVENTOR(S): Furuse, Katsumi; Ueno, Ryohei; Asakura, Sohei;  
 Yonekura, Norihisa; Mitsunari, Takashi  
 PATENT ASSIGNEE(S): Kumai Chemical Industry Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 68pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007023719	A1	20070301	WO 2006-JP316097	20060816
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2005-239757 A 20050822  
 OTHER SOURCE(S): MARPAT 146:268407  
 GI



I

AB 1,2-Benzisothiazolin-3-one-1,1-dioxide derivs. (I, wherein Y = O, S; R1 = C1-16 alkyl, C2-6 alkenyl, etc.; X = halo, NO<sub>2</sub>, alkyl, etc.; n = 0-4 integer) or salts thereof are extremely favorable for reducing chemical injury to cultivated plants without reducing weed control by herbicides. Thus, in a pot experiment I (Y = O, R1 = 4-chlorobenzyl, n = 0) was applied at 240 g/10 are on the day after transplanting (DAT) of rice, and benzobicyclon was applied at 20 g/10 are at 5 DAT. There was no inhibition of rice growth at 32 DAT, whereas rice growth inhibition was 68% when benzobicyclon was applied without the safener. In another experiment with benzobicyclon applied at 12.5 g/10 are, control of *Scirpus juncoides* was ≥90%, whether or not pots were pretreated with 240 g/10 are of the same I derivative.

IT 927419-12-3 927419-15-6 927419-22-5

927419-26-9

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(safened herbicide compns.)

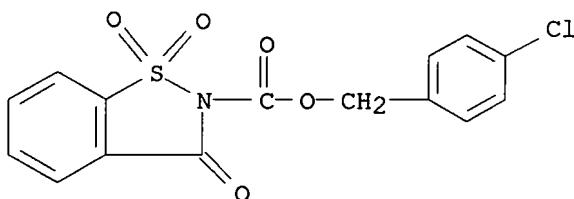
RN 927419-12-3 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, (4-chlorophenyl)methyl ester, 1,1-dioxide, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

CRN 863554-50-1

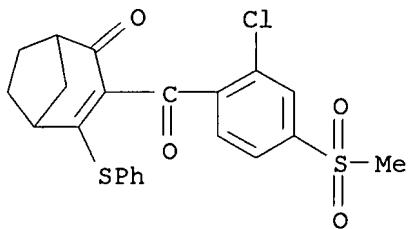
CMF C15 H10 Cl N O5 S



CM 2

CRN 156963-66-5

CMF C22 H19 Cl O4 S2



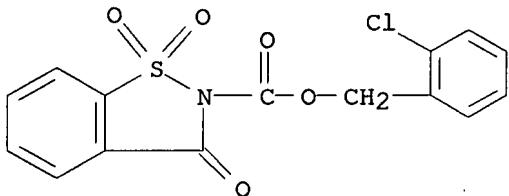
RN 927419-15-6 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, (2-chlorophenyl)methyl ester, 1,1-dioxide, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one (CA INDEX NAME)

CM 1

CRN 927419-03-2

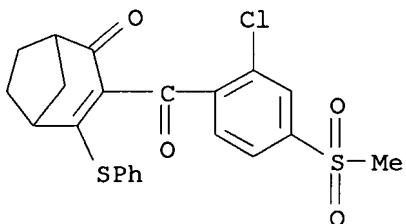
CMF C15 H10 Cl N O5 S



CM 2

CRN 156963-66-5

CMF C22 H19 Cl O4 S2



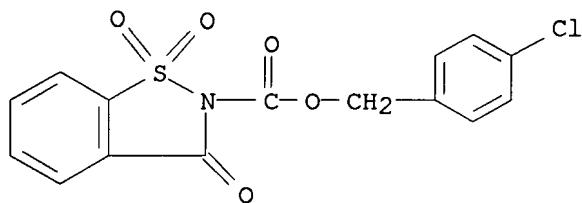
RN 927419-22-5 CAPLUS

CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, (4-chlorophenyl)methyl ester, 1,1-dioxide, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one and N,N-diethyl-3-[(2,4,6-trimethylphenyl)sulfonyl]-1H-1,2,4-triazole-1-carboxamide (CA INDEX NAME)

CM 1

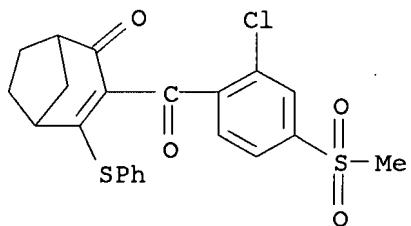
CRN 863554-50-1

CMF C15 H10 Cl N O5 S



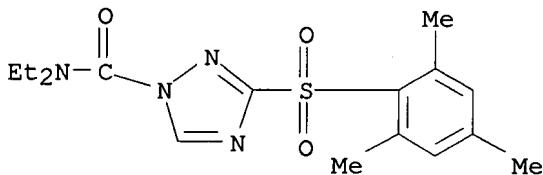
CM 2

CRN 156963-66-5  
 CMF C22 H19 Cl O4 S2



CM 3

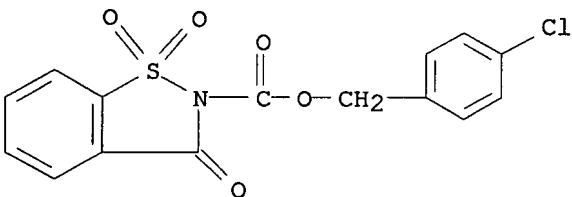
CRN 125306-83-4  
 CMF C16 H22 N4 O3 S



RN 927419-26-9 CAPLUS  
 CN 1,2-Benzisothiazole-2(3H)-carboxylic acid, 3-oxo-, (4-chlorophenyl)methyl ester, 1,1-dioxide, mixt. with 3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one and methyl 2-[[[[[(4,6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]benzoate (CA INDEX NAME)

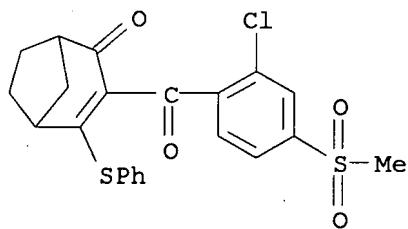
CM 1

CRN 863554-50-1  
 CMF C15 H10 Cl N O5 S



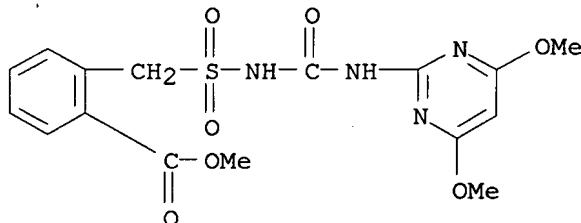
CM 2

CRN 156963-66-5  
CMF C22 H19 Cl O4 S2



CM 3

CRN 83055-99-6  
CMF C16 H18 N4 O7 S



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:120952 CAPLUS

DOCUMENT NUMBER: 146:206022

TITLE: Synthetic studies on the MARDi cascade:  
stereoselective preparation of sulfonyl-substituted  
seven-membered rings. [Erratum to document cited in  
CA146:100354]

AUTHOR(S): Coquerel, Yoann; Bensa, David; Moret, Vincent;  
Rodriguez, Jean

CORPORATE SOURCE: UMR CNRS 6178, Centre Universitaire de St. Jerome,  
Universite Paul Cezanne (Aix-Marseille III),  
Marseille, 13397/20, Fr.

SOURCE: Synlett (2006), (19), 3368  
CODEN: SYNLES; ISSN: 0936-5214

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB On page 2752, the chemical structure of cycloheptanol as compound (8) in Table 1 was incorrectly represented. The correct structure is given.

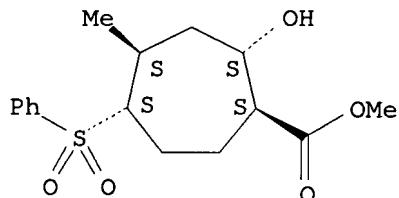
IT 917971-71-2P 917971-72-3P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective synthesis of functionalized sulfonyl-substituted  
cycloheptanes via formal two-carbon ring expansion of 2-benzenesulfonyl  
cyclopentanones through a base-induced anionic domino three-component  
transformation (Erratum))

RN 917971-71-2 CAPLUS

CN Cycloheptanecarboxylic acid, 2-hydroxy-4-methyl-5-(phenylsulfonyl)-, methyl ester, (1R,2R,4R,5R)-rel- (CA INDEX NAME)

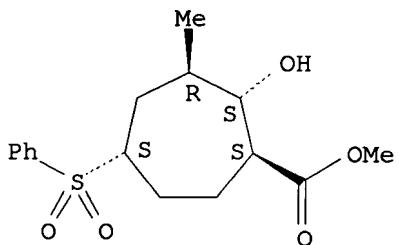
Relative stereochemistry.



RN 917971-72-3 CAPLUS

CN Cycloheptanecarboxylic acid, 2-hydroxy-3-methyl-5-(phenylsulfonyl)-, methyl ester, (1R,2R,3S,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.



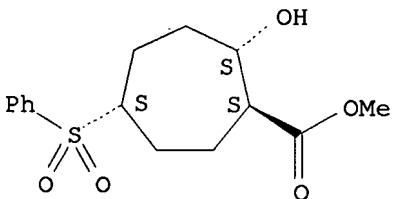
IT 917971-70-1P 917971-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective synthesis of functionalized sulfonyl-substituted cycloheptanes via formal two-carbon ring expansion of 2-benzenesulfonyl cyclopantanones through a base-induced anionic domino three-component transformation (Erratum))

RN 917971-70-1 CAPLUS

CN Cycloheptanecarboxylic acid, 2-hydroxy-5-(phenylsulfonyl)-, methyl ester, (1R,2R,5R)-rel- (CA INDEX NAME)

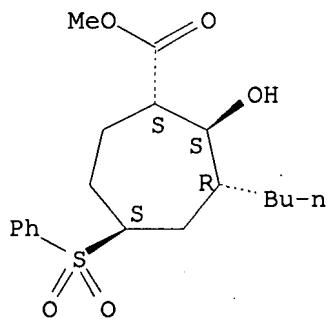
Relative stereochemistry.



RN 917971-73-4 CAPLUS

CN Cycloheptanecarboxylic acid, 3-butyl-2-hydroxy-5-(phenylsulfonyl)-, methyl ester, (1R,2R,3S,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.



L3 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1261562 CAPLUS

DOCUMENT NUMBER: 146:206186

TITLE: Polycyclic oxonium ylides - Use of cyclic acetals as convenient scaffolds in the construction of fused bicyclic compounds containing a medium ring

AUTHOR(S): Murphy, Graham K.; Marmsaeter, Fredrik P.; West, F. G.  
CORPORATE SOURCE: Department of Chemistry, Gunning-Lemieux Chemistry Centre, University of Alberta, Edmonton, AB, T6G 2G2, Can.

SOURCE: Canadian Journal of Chemistry (2006), 84(10), 1470-1486

CODEN: CJCHAG; ISSN: 0008-4042

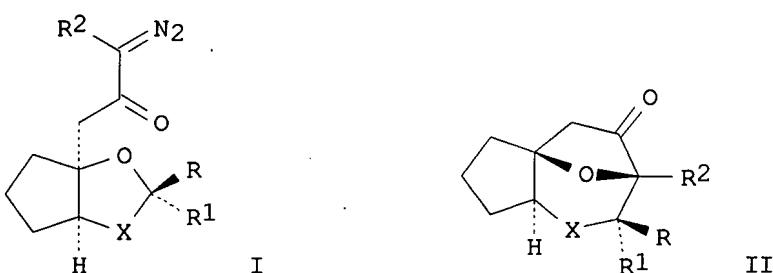
PUBLISHER: National Research Council of Canada

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:206186

GI



AB Cyclic mixed acetals and thioacetals I ( $R = H, MeO, 4\text{-MeC}_6H_4S; R1 = MeO, 4\text{-MeC}_6H_4S, H; R2 = H, EtO_2C; X = CH_2, CH_2CH_2$ ) with pendant diazoketones undergo efficient rearrangement to ether-bridged cyclooctanoid and cycloheptanoid systems such as oxatricycles II ( $R = H, MeO, 4\text{-MeC}_6H_4S; R1 = MeO, 4\text{-MeC}_6H_4S, H; R2 = H, EtO_2C; X = CH_2, CH_2CH_2$ ) upon treatment with copper bis(hexafluoroacetylacetone). Other catalysts such as copper bis(trifluoroacetylacetone), dirhodium tetraacetate, and dirhodium tetrakis(triphenylacetate) are significantly less effective in generating oxygen-bridged polycycles from I. A mechanism for the cyclocondensation is proposed; generation of oxonium ylides from I is followed by a [1,2]-shift to generate II. This work indicates that heteroatom-substituted oxonium ylides can undergo Stevens [1,2]-shifts. The arylthio moiety of products derived from mixed thioacetals can either be reductively cleaved or can be used to cleave the bridging ether.

IT 923054-48-2P

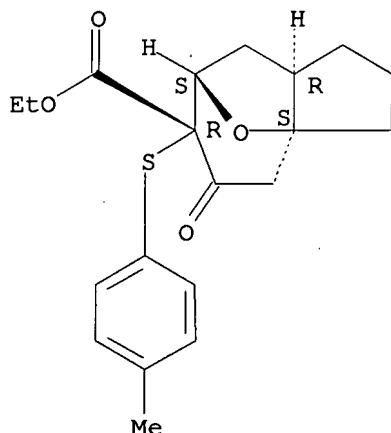
RL: BYP (Byproduct); PREP (Preparation)

(byproduct in the stereoselective preparation of oxatricycles by ylide formation and stereoselective rearrangement of diazoketones containing cyclic mixed acetals and thioacetals)

RN 923054-48-2 CAPLUS

CN 1H-3a,7-Epoxyazulene-6-carboxylic acid, octahydro-6-[ (4-methylphenyl)thio]-5-oxo-, ethyl ester, (3aR,6S,7R,8aS)-rel- (CA INDEX NAME)

Relative stereochemistry.



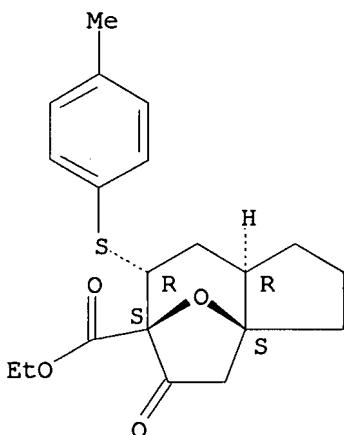
IT 923054-45-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective preparation of oxatricycles by ylide formation and  
stereoselective rearrangement of diazoketones containing cyclic mixed  
acetals and thioacetals)

RN 923054-45-9 CAPLUS

CN 6H-3a,6-Epoxyazulene-6-carboxylic acid, octahydro-7-[ (4-methylphenyl)thio]-5-oxo-, ethyl ester, (3aR,6R,7S,8aS)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT:

44

THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

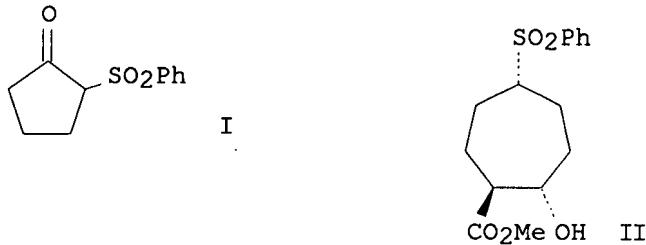
L3 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1188387 CAPLUS

DOCUMENT NUMBER: 146:100354

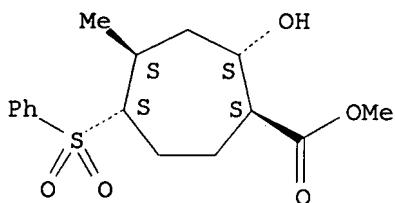
TITLE: Synthetic studies on the MARDi cascade:  
stereoselective preparation of sulfonyl-substituted

AUTHOR(S): seven-membered rings  
 Coquerel, Yoann; Bensa, David; Moret, Vincent;  
 Rodriguez, Jean  
 CORPORATE SOURCE: UMR CNRS 6178, Centre Universitaire de St Jerome,  
 Universite Paul Cezanne (Aix-Marseille III),  
 Marseille, 13397/20, Fr.  
 SOURCE: Synlett (2006), (17), 2751-2754  
 CODEN: SYNLES; ISSN: 0936-5214  
 PUBLISHER: Georg Thieme Verlag  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 146:100354  
 GI



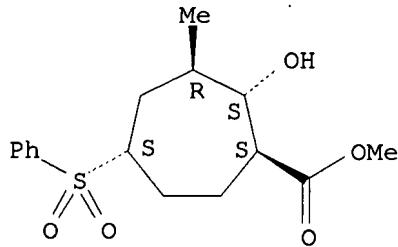
AB A stereoselective synthesis of functionalized sulfonyl-substituted cycloheptanes is described. The approach involves a formal two-carbon ring expansion of 2-benzenesulfonyl cyclopentanones through a base-induced anionic domino three-component transformation named the MARDi cascade (Michael Aldol Retro-Dieckmann). E.g., to a solution of  $\beta$ -keto sulfone I was added CH<sub>2</sub>:CHCHO and K<sub>2</sub>CO<sub>3</sub> to give 62% cycloheptane II (dr 4:1).  
 IT 917971-71-2P 917971-72-3P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (stereoselective synthesis of functionalized sulfonyl-substituted cycloheptanes via formal two-carbon ring expansion of 2-benzenesulfonyl cyclopentanones through a base-induced anionic domino three-component transformation)  
 RN 917971-71-2 CAPLUS  
 CN Cycloheptanecarboxylic acid, 2-hydroxy-4-methyl-5-(phenylsulfonyl)-, methyl ester, (1R,2R,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 917971-72-3 CAPLUS  
 CN Cycloheptanecarboxylic acid, 2-hydroxy-3-methyl-5-(phenylsulfonyl)-, methyl ester, (1R,2R,3S,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.



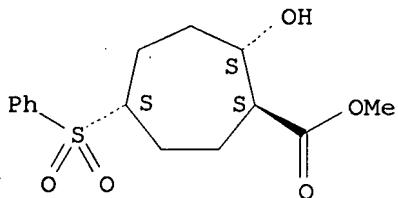
IT 917971-70-1P 917971-73-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(stereoselective synthesis of functionalized sulfonyl-substituted cycloheptanes via formal two-carbon ring expansion of 2-benzenesulfonyl cyclopentanones through a base-induced anionic domino three-component transformation)

RN 917971-70-1 CAPLUS

CN Cycloheptanecarboxylic acid, 2-hydroxy-5-(phenylsulfonyl)-, methyl ester, (1R,2R,5R)-rel- (CA INDEX NAME)

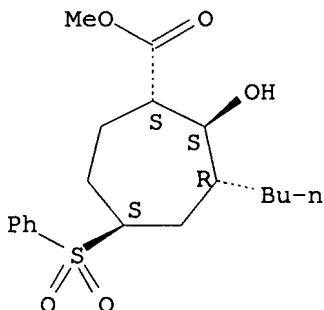
Relative stereochemistry.



RN 917971-73-4 CAPLUS

CN Cycloheptanecarboxylic acid, 3-butyl-2-hydroxy-5-(phenylsulfonyl)-, methyl ester, (1R,2R,3S,5R)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT:

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:893478 CAPLUS

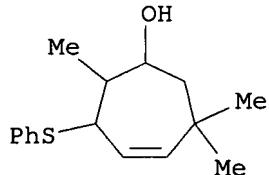
DOCUMENT NUMBER: 147:67630

TITLE: Supercritical carbon dioxide extraction and analysis of chemical components in Liquidambar orientalis Mill

AUTHOR(S): Su, Demin; Yao, Faye; Shi, Zhu

CORPORATE SOURCE: Department of Medicament, Shandong Province Hospital, Jinan, 250021, Peop. Rep. China

SOURCE: Huaxi Yaxue Zazhi (2005), 20(5), 409-411  
 CODEN: HYZAE2; ISSN: 1006-0103  
 PUBLISHER: Huaxi Yike Daxue Yaxueyuan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB Supercrit. CO<sub>2</sub> dioxide extraction and anal. of chemical components in root of Liquidambar orientalis Mill were studied. The volatile oil from roots of Liquidambar orientalis Mill was extracted by SFE (supercrit. fluid extraction) CO<sub>2</sub>, and analyzed by gas chromatog.-mass spectrometry (GC-MS). 73 Compds. were identified, representing 87% of the total GC peak area of the volatile oil. The main components were benzyl cinnamate (2.53), benzyl benzoate (29.87), benzyl acetate (1.71), benzenepropyl acetate, caryophyllene (2.42), iso-Bu cinnamate (3.05), patchoulene (1.81), calamenene (1.04), sclareol oxide (1.71), 17-oxo-lupanine (2.80), dehydro-4-epiabietol (5.20) and 2-decylhexadecyldehydro-indeno[2,1-a] indene (3.06%). The study provided scientific bases for the Liquidambar orientalis Mill exploitation in reason.  
 IT 929903-86-6  
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (supercrit. carbon dioxide extraction and anal. of chemical components in Liquidambar orientalis volatile oil)  
 RN 929903-86-6 CAPLUS  
 CN 4-Cyclohepten-1-ol, 2,6,6-trimethyl-3-(phenylthio)- (CA INDEX NAME)



L3 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:744227 CAPLUS  
 DOCUMENT NUMBER: 146:365060  
 TITLE: Chemical components of essential oils from Liquidambar orientalis Mill  
 AUTHOR(S): Yao, Faye; Qiu, Qin; Cui, Zhaojie; Su, Demin  
 CORPORATE SOURCE: Department of Chemistry, Shandong Institute of Education, Jinan, 250013, Peop. Rep. China  
 SOURCE: Yaowu Fenxi Zazhi (2005), 25(7), 859-862  
 CODEN: YFZADL; ISSN: 0254-1793  
 PUBLISHER: Yaowu Fenxi Zazhi Bianji Weiyuanhui  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese  
 AB To analyze the chemical constituents of volatile oil from the root of Liquidambar orientalis Mill, the volatile oils from roots of Liquidambar orientalis Mill was extracted by SFE CO<sub>2</sub>, and analyzed by gas chromatog.-mass spectrometry (GC-MS). Fifty compds. were identified, which represented 87% of the total GC peak area of the volatile oil. The present study provides scientific bases for the Liquidambar orientalis Mill exploitation in reason.  
 IT 929903-86-6  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (chemical constituents of volatile oils of Liquidambar)  
 RN 929903-86-6 CAPLUS  
 CN. 4-Cyclohepten-1-ol, 2,6,6-trimethyl-3-(phenylthio)- (CA INDEX NAME)

